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REMARKS

New claims have been introduced, which applicants believe, clarify the nature of the invention and are responsive to the rejections under 35 U.S.C. § 112, paragraph 2. Support for new claim 14 is provided, for example, in Example 1; on page 2, second full paragraph; and through the specification.

No new matter has been added and entry of the amendment is respectfully requested.

Oath/Declaration

The Office states that the declaration must state that joint inventors have reviewed and understand the contents of the specification, including the claims. (Office Action, page 2); however, this statement is included in the Declaration on file.

The declaration of record contains the statement, "We hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above." Because the declaration as submitted is proper, applicants respectfully request that this rejection be withdrawn.

Rejections Under 35 U.S.C. § 112, Second Paragraph

It is believed that the claims as now presented obviate the rejections made under this statutory provision. Specifically:

The claims no longer recite "capable of binding."

Independent claims 14 and 21 clarify that the extract is first fractionated, the fractions are placed on individual portions of the support, and the labeled target is supplied to the support, thus binding to any fraction that contains a compound to which the target binds.

The independent claims now recite, as the Office suggests, that the labeled target forms a complex with biologically active ingredients of interest which may be located at one or more portions of the solid support and then detecting the resulting complex.

It is has now been clarified that the solid support is washed in order to remove unbound labeled target.

Claims 15 and 22 directed to recovering the compound from the complex have also been clarified in accordance with the suggestion kindly made by the Examiner.

"A herb" has been changed to "an herb." There is no longer a counterpart specifically to claim 7; claim 24 clarifies that it is directed to the molecule which is recoverable by the method.

The kit claim 25, the counterpart for claim 11, no longer recites "gridded components," and uses of the kit are not included in the body of the claim.

Accordingly, it is believed that the rejections under 35 U.S.C. § 112, paragraph 2, are moot with regard to the claims now proposed.

The Rejection Under 35 U.S.C. § 102

Claims 1, 4, and 11 were rejected as assertedly anticipated by Burmer (U.S. 6,087,103).

As applicants are certain the Office is aware, in order to anticipate, each and every limitation of the claim must be disclosed in a single document. Anticipation is avoided if any element of the claim is not disclosed in this cited document. Claim 14, the counterpart to claim 1, requires in step a), fractionating a crude plant extract to obtain fractions. There is no such disclosure in Burmer. As claim 14 is not anticipated by Burmer, neither can claims dependent thereon be anticipated.

The remaining independent claims also require fractionating plant extracts and are thus not anticipated by Burmer. Accordingly, this basis for rejection may properly be withdrawn.

No rejection was made of these claims as assertedly obvious over Burmer alone; only claims 7 and 8 as previously pending were thus rejected. There are no counterpart claims to claims 7 and 8. Nevertheless, applicants point out that there is no suggestion at all in Burmer that the techniques employed by Burmer be applied to fractionated plant extracts. In addition, Burmer utilizes a different approach from that set forth in the present invention. In Burmer, a multiplicity of ligands is tagged by a multiplicity of tags and supplied as a pool to a solid support

with portions containing compounds to be detected. The present invention on the contrary, treats a single solid support containing a multiplicity of fractions of plant extract with a single labeled target, not a multiplicity of labeled targets distinguished by addressable tags as described by Burmer. The method of the invention is thus not anticipated or made obvious by the method of Burmer.

The Rejections Under 35 U.S.C. § 103

Claims 2-3 and 12-13 were rejected as assertedly obvious over the combination of Burmer with Baek.

As set forth above, Burmer does not describe the method of the invention and thus the claimed method is not suggested by Burmer in the first place. Combining Burmer with Baek, even if the combination is made, thus does not result in the invention. More importantly, there is no suggestion or motivation to combine the teachings of these documents. Baek, at best, suggests that extracts of *C. tinctorius* may contain some biologically active compounds, though not necessarily of the type actually obtained by applicants. Baek, in a sense, teaches away from the present invention by suggesting simple silica gel chromatography to separate biologically active compounds without suggesting the necessity for finding any additional active compounds in *C. tinctorius*.

To establish *prima facie* obviousness of a claimed invention, there must be some suggestion or motivation, in the prior art or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references. The prior art reference, or references combined, must teach or suggest all the claim limitations. There must also be a reasonable expectation of success should the combination or modification be carried out. *In re Vaeck*, 947 F2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Failure to establish **any one** of these three requirements precludes a finding of a prima facie case and, without more, entitles applicants to allowance of the claims at issue.

It should be apparent that none of these criteria is met in this instance. The Office has offered no suggestion or motivation for combining Baek with Burmer; when combined the documents fail to teach the invention, and there is no reasonable expectation of success in finding any particular biologically active compound by the method described.[1]

Claim 10 was rejected as obvious over the combination of Burmer with Verma; Verma is cited as disclosing that *C. tinctorius* extracts have anti-thrombotic activity. This is, indeed, mentioned in passing on page 740; no such mention on page 738 is found. As applicants understand this rejection, the assertion is that because it is known that the extracts of this particular plant have known biologic activity, it would be obvious to screen for such activity using the method of Burmer. First, there is no suggestion in either Burmer or Verma that this be done. Indeed, the only mention of "small molecules" in Burmer that applicants are able to find is in column 7, line 59-60, which refers to such molecules obtained by combinatorial methods. There is no suggestion to use any plant extracts. Similarly, Verma makes no suggestion of any method at all to use high throughput screening on plant extracts. Thus, there is no motivation to combine these documents. Second, even if these documents are combined, the invention does not result since the method of Burmer as set forth above, is not the method of the invention. Third, there is no teaching in either Burmer or Verma as to how any screening should be conducted for this activity. For these reasons, the counterpart to claim 10, claims 23-24 are not obvious over this combination.

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[1] Baek, *et al.*, simply teach isolation of kaempferol derivates from *Carthamus tinctorius* through repeated silica gel column chromatography. Baek *et al.* neither teach nor suggest screening of compounds by contacting fractionated crude plant extracts on a solid support with a target, and detecting the binding of the target with a compound from the plant extract. Applicants also note that the 3-substituted kaempferols isolated in Baek *et al.* have a molecular weight of at least 286 gram per mol. (The NW of kaempferol is 286 g/mol.) In contrast, the compound screened and obtained sing the methods of the presently claimed invention has a lesser molecular weight of about 268 gram per mol. (See Example 3, at page 7). Thus, Burmer does not teach "application of his simultaneous screening method for pharmacological compounds including those comprising small organic molecules such as *C. tinctorius L.* as in the teaching of Baek" (Office Action, page 9).

Claims 5-6 and 9 were rejected as obvious over Burmer in view of Kutsuna, *et al.* Kutsuna disclosed the isolation of an inhibitor of platelet aggregation induced by adenosine diphosphate, which turned out to be adenosine.

Claims directed to the method of obtaining even this compound are not suggested. There is clearly no suggestion in Kutsuna that the method now claimed in claim 22 would be successful. There is a multiplicity of factors involved in platelet aggregation, including factor X, thrombin, platelet factor receptors, and the like; there is no suggestion in Kutsuna that the isolated factor binds specifically to gpIIb/IIIa. Thus, not only is there no motivation to combine these documents; the combination fails to teach the required features of the relevant claims.

Claim 24 is directed to the product of the claimed process. Applicants have since confirmed that this product is indeed adenosine and have filed a continuation-in-part of the present application based on the use of adenosine to inhibit gpIIb/IIIa binding to serum proteins - Serial No. 09/853,524. Claim 24 is maintained because it contains product-by-process limitations which may distinguish it from claims directly to adenosine without such limitations according to the holding in *Atlantic Thermoplastics Co., Inc. v. Faytex Corp.*, 5 F3d 1477, 28 USPQ2d 1343 (Fed. Cir. 1993), and 970 F2d 834, 23 USPQ2d 1481 (Fed. Cir. 1992). Applicants are aware that this holding is in contrast with another panel decision in *Scripps Clinic & Research Foundation v. Genentech Inc.*, 927 F2d 1565, 1576, 18 USPQ2d 1010 (Fed. Cir. 1991).

For these reasons, this basis for rejection may also be withdrawn.

CONCLUSION

The claims have been amended to obviate the rejections under 35 U.S.C. § 112, paragraph 2. The claims are plainly not anticipated by Burmer, because the element of fractionating a crude plant extract is missing from Burmer. Neither are the claims rendered obvious by Burmer or its combination with any of the secondary documents since there is no motivation to combine their teachings, and once combined, the invention does not result.

Accordingly, it is believed that claims 14-28 are in a position for allowance and passage of these claims to issue is respectively requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 205032000400.

Respectfully submitted,

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By: Kate H. Murashige

Kate H. Murashige
Registration No. 29,959

Morrison & Foerster LLP
3811 Valley Centre Drive, Suite 500
San Diego, California 92130-2332
Telephone: (858) 720-5112
Facsimile: (858) 720-5125